

Docket No.: HI-0159

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCE**

In re Application of

Confirmation No.: 4055

Jang Geun OH

Group Art Unit: 2674

Serial No.: 10/621,369

Examiner: Stephen G. Sherman

Filed: July 18, 2003

Customer No.: 34610

For: APPARATUS AND METHOD FOR CONTROLLING BRIGHTNESS LEVEL
OF A DISPLAY

REPLY BRIEF

U.S. Patent and Trademark Office
Customer Window, Mail Stop Appeal Brief-Patents
Randolph Building
401 Dulany Street
Alexandria, Virginia 223134

Sir:

In response to the Examiner's Answer dated November 1, 2007 (hereafter the Examiner's Answer), appellant is filing this Reply Brief in accordance with 37 C.F.R. §41.41. Appellant maintains all the arguments made in the Appeal Brief filed August 22, 2007 (hereafter the Appeal Brief). In the interest of efficiency, appellant is providing the following brief comments in response to statements and/or arguments in the Examiner's Answer.

Independent claim 28 relates to a predetermined brightness. For example, independent claim 28 recites sensing a brightness of the display and adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness. Independent

claim 28 further recites setting an adjusted brightness control code corresponding to the predetermined brightness of the display, wherein the driving includes initially driving the display using a brightness control code provided by a display manufacturer, and wherein setting the adjusted brightness control code includes setting a new brightness control code corresponding to the predetermined brightness, the new brightness control code replacing the brightness control code provided by the display manufacturer.

The Examiner's Answer (on pages 11-14) appears to state that Mendelson's Table 1 (shown in col. 11) relates to the claimed predetermined brightness because Mendelson discloses driving lamps at a maximum luminance and a minimum luminance, measuring the brightness at the maximum and minimum to determine the brightness and then calculating voltages using the measured brightness (i.e., the alleged brightness control code). The Examiner's Answer then attempts to state that the maximum and minimum levels of the lamps are the predetermined brightness. However, this is incorrect since the alleged brightness is the actual brightness of the lamps at the maximum and minimum intensity levels. In other words, the brightness is not the predetermined brightness as recited throughout independent claim 28.

Mendelson does not relate to adjusting the driving of the display until the display is driven at a predetermined brightness and setting an adjusted brightness control code corresponding to the predetermined brightness of the display. Rather, Mendelson at best may determine a brightness of lamps driven at maximum and minimum luminance, and then store values based on the determined brightness. This does not teach or suggest a predetermined brightness as recited throughout independent claim 28.

As one non-limiting example, paragraph [0043] of the present specification discusses that the sensed brightness of LCD#B may be 15 nit (e.g., 1.1 watt), and then the sensed brightness is decreased to the desired brightness of 10 nit, which is the brightness of LCD#A. Additionally, paragraph [0043] relates to adjusting the driving of the display until the display is driven at a predetermined brightness (such as 10 nit). See also FIG. 7 of the present application relating to sensing a brightness (S73), comparing a sensed brightness with a previously stored brightness value (S74) and then determining whether the sensed value equals the previously stored brightness value (S75). Mendelson does not teach or suggest adjusting the driving until the display is driven at a predetermined brightness.

Mendelson's driving of lamps at maximum and minimum intensity levels does not teach or suggest adjusting the driving of the display until the display is driven at a predetermined brightness. Maximum and minimum intensity levels are not a predetermined brightness based on a sensed brightness. Appellant also notes that Mendelson very specifically discloses that peak relative luminance of the lamp pairs change/degrade, which causes a change in color characteristics of the LCD. See Mendelson's col. 13, lines 57-63. Mendelson therefore teaches to update the reference profile of the LCD during the service life. See col. 13, line 63-col. 14, line 10. Mendelson therefore discloses that its lamps are not at a predetermined brightness but rather are at a "degraded brightness". Mendelson's disclosure of the updated profile does not teach or suggest a predetermined brightness but rather relates to a maximum or minimum intensity level of the lamps.

Mendelson also does not suggest setting an adjusted brightness control code corresponding to the predetermined brightness of the display. The Examiner's Answer (on page 12) states that measured brightness are used to calculate voltages (i.e., alleged brightness control codes) and then the codes are stored. However, independent claim 28 very specifically recites setting an adjusted brightness control code corresponding to the predetermined brightness of the display.

The Examiner's Answer (on page 13) states that Mendelson discloses driving the display at different voltages, sensing the brightness of the display, making calculations based on the sensed brightness and creating an updated profile. Appellant respectfully asserts that this interpretation of Mendelson does not suggest adjusting the driving of the display until the display is driven at a predetermined brightness and setting an adjusted brightness control code corresponding to the predetermined brightness of the display. In particular, a sensed brightness based on a driving of the display at a particular voltage does not suggest "adjusting the driving . . . until the display is driven at a predetermined brightness."

Still further, the Examiner's Answer (on page 14) states that Mendelson discloses driving the display (after the codes are stored) at predetermined voltages, which are predetermined brightnesses since the voltages (that the display are driven at) determine the brightness based upon the values that have been sensed by the sensor. However, this also does not suggest the claimed features relating to a predetermined brightness. Rather, this relates to lamps at specific voltages. Mendelson clearly states that lamps degrade over time. See Mendelson's col. 13, line 57-col. 14, line 10. The Examiner's Answer's interpretation on page 14 does not suggest

adjusting the driving of the display until the display is driven at a predetermined brightness and setting an adjusted brightness control code corresponding to the predetermined brightness of the display.

Still further, the Examiner's Answer (on page 14) appears to assert that the claimed adjusting and setting can occur in any order. Appellant respectfully disagrees. Independent claim 28 recites setting an adjusted brightness control code corresponding to the predetermined brightness and wherein the setting includes setting the new brightness control code corresponding to the predetermined brightness, the new brightness control code replacing the brightness control code provided by the display manufacturer. The interpretation set forth in the Examiner's Answer on page 14 does not correspond to the claims. Even further, dependent claim 41, which depends from independent claim 28, specifically recites that setting the brightness control code occurs after adjusting the driving the display. Thus, contrary to the Examiner's Answer, the setting occurs after the driving (with respect to at least dependent claim 41.)¹

Still further, the Examiner's Answer (on page 14) misinterprets the claimed "adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness." The specification very clearly describes adjusting driving of the display until the sensed brightness is a specific value (i.e., the predetermined brightness). See paragraphs [0050]-[0052] and FIG. 7, S73, S74, S75, S79, S80, S81. The claim language should therefore be

¹ When discussing dependent claim 41 (on page 21), the Examiner's Answer states that the setting of codes is performed after adjusting the driving. This differs from the comments on page 14 of the Examiner's Answer that "the claims do not state that the setting of the adjusted brightness control code has to happen after the adjusting of the driving."

interpreted to mean that adjusting of the driving occurs until reaching the predetermined brightness (as determined by the sensed brightness). The interpretation set forth in the Examiner's Answer is not consistent with the claim language or with the specification.

For at least the reasons set forth above and the reasons set forth in the Appeal Brief, Mendelson and Ichise do not teach or suggest all the features of independent claim 28. Thus, independent claim 28 defines patentable subject matter.

The Examiner's Answer (on page 24) only briefly discusses independent claim 36. Appellant respectfully submits that the Appeal Brief specifically addresses the differently claimed features of independent claim 36. See the Appeal Brief on pages 18-19. In summary, Mendelson (and Ichise) does not teach or suggest setting an adjusted brightness control code corresponding to the predetermined brightness and adjusting the driving until the display is driven at a predetermined brightness, as recited in independent claim 36. Thus, independent claim 36 defines patentable subject matter.

Dependent claims 47-49 each separately relate to setting a new brightness control code. The Office Action (on page 9) expressly states that Mendelson does not teach or suggest the specific features relating to increasing/decreasing the brightness control code. The Office Action cites a section of Ichise (as stated in the Appeal Brief) for the missing features. However, the cited section and the example given in the Office Action/Examiner's Answer do not relate to the claimed brightness control code, the claimed brightness control code provided by the display manufacturer and/or the claimed previous brightness control code. The Examiner's Answer provides an example based on a difference value and an amount to attenuate the brightness. The

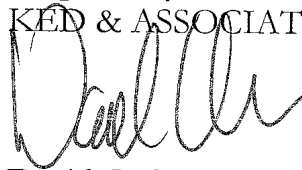
numbers discussed in the Examiner's Answer with respect to Ichise do not relate to brightness control codes and/or to "setting a new brightness control code corresponding to the predetermined brightness, the new brightness control code replacing the brightness control code provided by the display manufacturer" as recited in base independent claim 28, for example. Further, the example provided with respect to Ichise does not relate to a predetermined brightness. Each of dependent claims 47-49 defines patentable subject matter at least for these additional reasons.

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In view of the above and/or statements and arguments made in the Appeal Brief, it is respectfully submitted that each of claims 28, 30-41 and 47-50 defines patentable subject matter. Appellant respectfully requests that the rejection of the pending claims be withdrawn and/or reversed.

Respectfully submitted,
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